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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,183	08/18/2006	Lars Ingvarsson	HT-127	4031

7590 11/29/2010

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EXAMINER	
SULLIVAN, DEBRA M	

ART UNIT	PAPER NUMBER
3725	

MAIL DATE	DELIVERY MODE
11/29/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/590,183
Filing Date: August 18, 2006
Appellant(s): INGVARSSON, LARS

Mark P. Stone
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed August 30, 2010 appealing from the Office action mailed April 16, 2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1-8 and 13-18 have been rejected over prior art and are presented for review on appeal.

Claims 9-12 and 19 have been withdrawn from consideration as a result of a Restriction Requirement.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the

appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

7,107,807	Ingvarsson et al.	9-2006
7,111,481	Green et al.	9-2006
2004/0244453	Schule	12-2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-3 are rejected, as best understood, under 35 U.S.C. 103(a) as being unpatentable over Ingvarsson et al (US Patent # 7,107,807) in view of Green et al (US Patent # 7,111,481). Ingvarsson et al discloses a method for forming, in a production line, profiles (See FIG 3) with a cross-section that varies along the length thereof, said profiles being formed from a plane metal

strip (10) that is unwound from a coil (12), the method employing edge cutters (102, 103) and a plurality of roll-forming units (91-98), the edge cutter and the roll-forming units being individually displaceable sideways relative to the strip, the method comprising the steps of controlling the edge cutters along a first pair of opposed curved lines to sever opposed edges of the strip as the strip moves along the production line to provide the strip with curved opposed edges [see col. 5 lines 47-50], thereafter controlling the roll-forming units along a second pair of opposed curved lines for forming a first pair of corner (27, 28)defining opposed flanges to each side of the center of the metal strip (10) as the strip moves though a first roll-forming section of the production line and controlling the roll-forming units along a third pair of opposed curved lines for forming a second pair of corner (bottom corners of walls 25, 26) defining opposed sides to each side of the center of the metal strip (10) between the first corners (27, 28) as the strip moves through a second roll-forming section of the production line, wherein the curvatures of the first, second and third pairs of opposed curved lines vary the cross section of the profile formed from the strip along the length thereof [See col. 2 lines 33-39, col. 5 lines 25-42, col. 5 line 47-col. 6 lines 7; FIGS 3, 11 & 12]. Ingvarsson et al discloses the invention substantially as claimed except for wherein the second corner is formed after the first corner has been formed. However, Green et al teaches of forming profiles in a plane metal strip by forming a first corner 208b and than forming a second corner (210b) after the first corner (208b) has been formed in order to prevent stress and buckling on the walls while deforming the edges [see col. 5 line 36-col. 6 lines 8; FIG 3]. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Ingvarsson et al to have the

second corner formed after the first corner as been formed, as taught by Green et al, in order to prevent stress and buckling on the walls while deforming the edges.

In reference to claim 2, Ingvarsson et al further discloses including the step of cutting a transverse slit in the strip (10) before forming the first and second corners, without fully severing the strip (10) and severing the strip with a terminal cutter (63, 64) after the first and second corners are formed to remove a trailing end from the length of the profile formed from the strip (10) [See col. 4 lines 50-65].

In reference to claim 3, Ingvarsson et al further discloses that the length of the profile formed have different widths of extend at opposed ends of the profile, the steps of method including adjusting the width of the strip between one slit that defines the trailing end of the length of the one profile, cutting a further slit to define a leading end of the length of a subsequent profile and there after cutting the strip (10) at both slits with the terminal cutter (63, 64) [See col. 4 lines 50-65].

2. Claims 4-8 and 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ingvarsson et al in view of Green et al as applied to claim 1 above, and further in view of Schule (US 2004/0244453). Ingvarsson et al discloses the invention substantially as claimed except for wherein the method further comprises of thinning the profile. However, Schule teaches of a method for bending profiles by squeezing and stretching the material of a section in order to cause the material to bend and allowing the degree of bending to be adjusted quite accurately by varying the amount of force exerted [See paragraph 0009 and lines 11-18 of paragraph 0010]. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to improve the bending steps of Ingvarsson et al by allowing a force on the

profile through the use of rollers to thereby thin the material and cause bending of the material, as taught by Schule, in order to obtain an accurate degree of bending.

(10) Response to Argument

Argument Section for Ingvarsson et al. in view of Green et al.

The appellant contends, on page 7 line 26 - page 8 line 4 of the appeal brief, that **"Ingvarsson et al does not teach or suggest, either expressly or inherently, a method in which edge cutters are moved along a firs pair of opposed curved lines to sever opposed edges of a strip to provide the strip with curved opposed edges; controlling roll-forming unites along a second pair of opposed curved lines for forming a pair of corners defining opposed flanges to each side of the center of the metal strip; controlling roll-forming units along a third pair of opposed curved lines for forming a second pair of corners defining opposed sides to each side of the center of the metal strip between the first corners, wherein the curvatures of the first, second and third pairs of opposed curved lines vary the cross section of the profile formed from the strip along the length thereof."** However, the examiner respectfully disagrees. Ingvarsson et al discloses in column 5 lines 25-42 that the forming section 90 includes four groups 91-94 and 95-98 of forming stations on each side of the sheet section and that each group has a carrier which is movable in parallel and the angulation of which can be adjusted individually to thereby produce sheets that include selective curve shapes within given limits such a structures that have a varying radius of curvature. Ingvarsson et al further discloses that edge cutters 102, 103 move in unison with the first pair of forming stations 91, 95 along a first curved line. Therefore it is inherent that the roll forming units 92, 96 downstream from the edge cutters 102, 103 are along a second curved line that is positioned further inward then the

edge cutters 102, 103 and roll forming units 91, 95 associated with the edge cutters to form the first corners 28, 27, and the roll forming units 93, 97 downstream of the roll forming units 92, 96 are along a third curved line that is positioned further inward then the second curved line the previous roll forming units 92, 96 are along to form the second corners (bottom corners between walls 25, 26 and base 10) since as the material is formed the material is bent inwardly and the downstream roll forming units must be positioned further inward in order to contact the material to perform the subsequent roll forming operation. If the roll forming units were all along the same curved line then the downstream roll forming units will not contact the sheet material because the sheet material will be bent inward to the roll forming units.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Debra Sullivan

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Examiner, Art Unit 3725

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